

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002724**Date Inspected:** 23-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Lu Qing, Wu Ming Kai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans OBG, Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

**OBG - Bay 3**

The Caltrans QA Inspector randomly observed the fitting and tacking of WT stiffeners on Bottom Plates BP 113-001 and BP 032-001 using the shielded metal arc welding process (SMAW), electrode classification E7018-1. Portable electrode ovens were being used and preheat was being administered. Certified Welding Inspector (CWI), Wu Ming Kai (CWI No. 04082031) was present during this welding as was ABF QA Inspector, Zhao Yu Min.

**OBG - Bay 4**

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. SSD1-SA261-1A 2A by welding operator Jiang Jing Teng (I. D. No. 046830), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The weld was being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Ye Yong Jun (CWI No. 07031461) was present during this welding as was ABF QA Inspector, Wei Jian Bo. The QA Inspector verified the qualifications of the welding operator; and the parameters of amperage, voltage and travel speed.

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## OBG - Bay 7

The Caltrans QA Inspector also randomly observed the SMAW) tacking of I-stiffeners on diaphragm floor beams, Weld Nos. FB 012-007-23/23 and FB 012-007-13/4. ZPMC Certified Welding Inspector, Huang Wen Pang was present during this welding. The welder was Li Wen Gao (I. D. No. 066261), whose qualifications for this welding were verified by the Caltrans QA Inspector. The welding procedure being used was WPS-B-P-2112. The electrode being used was 4.0 mm E7018 (TL508).

## OBG - Bay 8

The Caltrans QA Inspector also randomly observed the machine SAW of fill passes on Weld No. SSD1-SA248-1A/2A by welding operator Xu Pei Pei (I. D. No. 050323), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The weld was being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Lu Li Qing (CWI No. 07120771) was present during this welding as were ABF QA Inspectors, You Yuan Mao and LV Yun (CWI No. 07101491). The QA Inspector verified the qualifications of the welding operator; the filler metal being used; and the parameters of preheat, amperage, voltage and travel speed.

The Caltrans QA Inspector also randomly observed the machine SAW of fill passes on Weld No. ESD1-SA348-10B by welding operator Ma Ying (I. D. No. 045270), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The weld was being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Lu Li Qing (CWI No. 07120771) was present during this welding as were ABF QA Inspectors, You Yuan Mao and LV Yun (CWI No. 07101491). The QA Inspector verified the qualifications of the welding operator, and the parameters of preheat, amperage, voltage and travel speed.

All above observations appeared to meet the requirements of the job specifications.



## Summary of Conversations:

As identified within the contents of this report.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Jobes, Kenneth	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran, Jim	QA Reviewer
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